

## Chapter 9

### Index

#### 300 Area of Hanford

2-42, 2-44, 3-1, 3-78, 3-79, 3-81, 3-82, 3-84, 3-86, 3-88–3-90, 3-93, 3-95, 3-98, 3-101–3-103, 3-105–3-107, 3-109, 3-112, 3-157, 4-32–4-34, 4-37–4-39, 4-42, 4-48, 4-53, 4-56, 4-58, 4-59, 4-63, 4-69, 4-74, 4-85, 4-91, 4-96, 4-97, 4-235

#### 400 Area of Hanford

2-39, 2-71, 2-80, 2-87, 2-90, 3-1, 3-78, 3-81, 3-83, 3-84, 3-86, 3-88, 3-89, 3-93–3-96, 3-98, 3-101–3-103, 3-105–3-108, 3-112, 3-115, 3-158, 4-6, 4-7, 4-13, 4-25, 4-26, 4-33, 4-34, 4-36–4-39, 4-52, 4-53, 4-74, 4-76, 4-77, 4-89, 4-122, 4-123, 4-127, 4-139, 4-141, 4-142, 4-153, 4-250–4-252, 4-295–4-297

#### 7900 Area of Oak Ridge National Laboratory

2-21 3-6, 3-7, 3-9, 3-12–3-15, 3-17, 3-18, 3-20–3-23, 3-25, 3-156, 3-158, 4-14, 4-15, 4-33, 4-34, 4-37–4-39, 4-91, 4-112–4-114, 4-183–4-185, 4-223–4-225, 4-227, 4-228, 4-268–4-270, 4-272

## A

#### accelerators

1-1, 1-2, 1-9–1-11, 1-13, 1-22, 2-1–2-3, 2-9, 2-25, 2-30, 2-57–2-59, 2-61, 2-62, 2-64–2-66, 2-81–2-83, 2-87, 2-92, 2-95, 2-99, 2-105, 3-1, 3-136–3-137, 3-139–3-144, 4-1, 4-31, 4-109, 4-214–4-217, 4-219–4-223, 4-225–4-234, 4-235–4-259, 4-305, 4-317, 4-319–4-321, 5-2–5-4, 5-7–5-13, 5-16

#### accident consequences

2-87, 4-10, 4-17, 4-45, 4-65, 4-81, 4-93, 4-100, 4-106, 4-118, 4-134, 4-147, 4-159, 4-168, 4-178, 4-189, 4-198, 4-208, 4-232, 4-246, 4-255, 4-276, 4-284, 4-291, 4-300

#### accident risk

2-87, 4-9, 4-18, 4-44, 4-48, 4-64, 4-69, 4-80, 4-85, 4-92, 4-95, 4-98, 4-102, 4-105, 4-108, 4-117, 4-125, 4-133, 4-145, 4-158, 4-161, 4-167, 4-177, 4-187, 4-188, 4-197, 4-207, 4-278, 4-293, 4-302

#### accidents during transportation

4-5, 4-18, 4-24, 4-29, 4-47, 4-69, 4-84, 4-95, 4-102, 4-108, 4-120, 4-137, 4-150, 4-162, 4-172, 4-182, 4-191, 4-201, 4-212, 4-234, 4-248, 4-257, 4-258, 4-278, 4-293, 4-302

#### Advanced Test Reactor

2-1, 2-3, 2-5–2-7, 2-9, 2-15–2-19, 2-21, 2-35, 2-37, 2-57, 2-59–2-61, 2-66, 2-74–2-76, 2-79, 2-80, 2-98, 2-99, 2-104, 2-105, 3-1, 3-41, 3-42, 3-47, 3-48, 3-50, 3-52–3-54, 3-60, 3-68, 3-69, 3-156, 3-157, 4-109–4-121, 4-127–4-135, 4-137–4-151, 4-183–4-199, 4-201–4-213, 4-311–4-313, 5-1, 5-7

#### air quality

2-70–2-80, 2-82, 2-84, 2-86, 2-90, 2-92, 3-1, 3-2, 3-7–3-9, 3-44, 3-45, 3-84–3-86, 3-124, 3-125, 3-137, 3-138, 3-148, 3-149, 3-156, 3-158, 3-159, 4-1, 4-4, 4-6, 4-14, 4-20, 4-25, 4-34–4-36, 4-42, 4-58, 4-59, 4-74, 4-75, 4-91, 4-97, 4-104, 4-111–4-113, 4-122, 4-128, 4-129, 4-139, 4-140, 4-155, 4-164, 4-174, 4-184, 4-194, 4-204, 4-217, 4-218, 4-224, 4-225, 4-237, 4-242, 4-251, 4-263, 4-269, 4-282, 4-287, 4-295, 4-296, 4-305, 4-308, 4-309, 4-311, 4-312, 4-314, 4-319, 4-320, 4-322, 5-3, 5-4

#### Alternative 1

2-1, 2-3, 2-10, 2-15, 2-21, 2-24, 2-35, 2-37, 2-39, 2-42, 2-58, 2-71, 2-73, 2-74, 2-87, 2-88, 2-90, 2-97, 4-31, 4-32, 4-35, 4-36, 4-41–4-43, 4-45, 4-46, 4-50, 4-51, 4-54, 4-56, 4-58, 4-59, 4-62, 4-63, 4-65, 4-66, 4-68, 4-71, 4-73, 4-75, 4-79–4-82, 4-84, 4-87, 4-89, 4-93, 4-94, 4-96, 4-100, 4-101, 4-103, 4-106, 4-107, 4-121, 4-138, 4-163, 4-172, 4-192, 4-203, 4-237, 4-249, 4-280, 4-294, 4-303, 4-313–4-316, 5-1

#### Alternative 2

2-1, 2-3, 2-15, 2-16, 2-21, 2-24, 2-35, 2-37, 2-39, 2-44, 2-57, 2-59, 2-60, 2-62, 2-66, 2-67, 2-74, 2-80, 2-88, 2-90, 2-92, 2-98, 4-1, 4-2, 4-109–4-111, 4-113, 4-115–4-119, 4-127, 4-129, 4-132–4-138, 4-140, 4-143–4-145, 4-147–4-149, 4-152, 4-154, 4-157–4-161, 4-163, 4-166, 4-168–4-171, 4-173, 4-176, 4-178–4-181, 4-183, 4-187, 4-189, 4-190, 4-193, 4-196–4-201, 4-203, 4-206–4-211, 4-214, 4-224, 4-229, 4-242, 4-245, 4-251, 4-254, 4-258, 4-269, 4-274, 4-287, 4-290, 4-296, 4-299, 4-307, 4-308, 4-311, 4-316, 5-1

#### Alternative 3

2-1, 2-3, 2-15, 2-21, 2-24, 2-25, 2-27, 2-35, 2-37, 2-39, 2-44, 2-57, 2-61, 2-62, 2-69, 2-81, 2-88, 2-90, 2-92, 2-95, 2-99, 2-100, 3-136, 4-1, 4-214, 4-215, 4-217, 4-222, 4-224, 4-229, 4-230, 4-232, 4-233, 4-235, 4-240, 4-241, 4-244–4-247, 4-250, 4-253–4-256, 4-316, 4-317, 5-2

#### Alternative 4

2-1, 2-3, 2-15, 2-16, 2-21, 2-24, 2-30, 2-35, 2-37, 2-39, 2-44, 2-57, 2-63, 2-83, 2-90, 2-92, 2-99, 2-101, 3-136, 4-1, 4-260, 4-262, 4-263, 4-267, 4-269, 4-273, 4-274, 4-276, 4-277, 4-279, 4-284, 4-286, 4-289–4-292, 4-294, 4-298–4-301, 4-316, 4-317, 5-2

#### Alternative 5

1-12, 1-14, 2-1, 2-3, 2-15, 2-16, 2-21, 2-24, 2-35, 2-39, 2-44, 2-57, 2-59, 2-64, 2-85, 2-86, 2-88, 2-90, 2-99, 2-101, 4-109, 4-304, 5-2

#### aquatic resources

3-3, 3-10, 3-12–3-14, 3-18, 3-20, 3-21, 3-39, 3-54, 3-57, 3-79, 3-98, 3-101–3-103, 3-122, 3-126, 3-127, 3-136, 3-139, 3-140, 4-7, 4-15, 4-21, 4-26, 4-38, 4-39, 4-60, 4-114, 4-130, 4-141, 4-155, 4-185, 4-220, 4-227, 4-238, 4-243, 4-252, 4-265, 4-266, 4-271, 4-272, 4-282, 4-288, 4-297, 5-16

### B

#### Building 306–E

2-2, 2-3, 2-24, 2-35, 2-42, 2-44, 2-45, 2-55, 2-57, 2-59, 2-71–2-73, 3-78, 3-81, 3-90, 3-106, 4-31–4-34, 4-37–4-39, 4-42, 4-49–4-53, 4-57–4-60, 4-70, 4-89–4-92, 4-96–4-98, 4-102, 4-235, 5-1

### C

#### commercial light water reactor

1-7, 1-17, 1-18, 2-1, 2-3, 2-5–2-7, 2-9, 2-24–2-26, 2-57, 2-60, 2-67, 2-69, 2-74, 2-77, 2-78, 2-92, 2-95, 2-98, 2-99, 3-1, 3-122, 3-124–3-133, 3-154, 4-109–4-111, 4-154–4-182, 4-317, 5-1, 5-3, 5-4, 5-7–5-12, 5-14, 5-16

CPP-651 (Unirradiated Fuel Storage Facility)

2-2, 2-3, 2-35, 2-37, 2-39, 2-57–2-62, 2-64, 2-70–2-80, 2-82–2-85, 4-3, 4-19–4-21, 4-23, 4-24, 4-32, 4-57–4-60, 4-96–4-98, 4-109, 4-110, 4-127–4-130, 4-163, 4-193, 4-215, 4-241–4-243, 4-261, 4-286–4-288, 5-1, 5-2

CPP-666 (Fluorinel Dissolution Process Facility)

2-2, 2-3, 2-37–2-39, 3-1, 3-72, 5-1

cultural and paleontological resources

2-70–2-72, 2-74, 2-75, 2-77, 2-79, 2-81–2-86, 3-1, 3-2, 3-21, 3-58, 3-104, 3-127, 3-140, 4-1, 4-7, 4-15, 4-21, 4-26, 4-39, 4-60, 4-77, 4-91, 4-98, 4-104, 4-114, 4-123, 4-130, 4-142, 4-156, 4-165, 4-174, 4-185, 4-186, 4-195, 4-205, 4-220, 4-227, 4-238, 4-243, 4-252, 4-266, 4-272, 4-282, 4-288, 4-297, 5-7, 5-8, 5-10, 5-11

**D**

decontamination and decommissioning

1-10, 2-10, 2-15, 2-62, 2-63, 3-3, 3-31, 4-122, 4-123, 4-214, 4-216, 4-237–4-241, 4-249, 4-250, 4-259, 4-260, 4-262, 4-281–4-286, 4-294, 4-303, 4-320, 5-2

dismissed, alternatives

1-22, 2-1, 2-2, 2-64–2-69

**E**

East Tennessee Technology Park

1-19–1-21, 3-3, 3-4, 3-8, 3-10, 3-11, 3-14, 3-15, 3-22, 3-25, 3-34–3-36

ecological resources

2-70–2-72, 2-74, 2-75, 2-77, 2-79–2-86, 2-90, 3-1, 3-2, 3-18, 3-54, 3-98, 3-100, 3-126, 3-139, 4-1, 4-7, 4-15, 4-21, 4-26, 4-38, 4-39, 4-60, 4-77, 4-91, 4-98, 4-104, 4-114, 4-123, 4-130, 4-141, 4-155, 4-164, 4-174, 4-185, 4-195, 4-205, 4-219, 4-220, 4-226, 4-238, 4-243, 4-252, 4-265, 4-271, 4-282, 4-288, 4-296

emergency management

2-53, 3-29, 3-48, 3-68, 3-90, 3-114, 3-132, 3-144, 5-1, 5-15, 5-19, 5-20

environmental impact comparison

2-87

environmental justice

2-70, 2-72, 2-75, 2-77, 2-79, 2-82, 2-84, 2-86, 2-90, 3-1, 3-2, 3-29, 3-30, 3-68, 3-115, 3-132, 3-145, 3-150, 4-1, 4-2, 4-10, 4-18, 4-24, 4-29, 4-48, 4-69, 4-85, 4-96, 4-102, 4-108, 4-120, 4-126, 4-137, 4-150, 4-162, 4-172, 4-182, 4-192, 4-202, 4-212, 4-221, 4-222, 4-234, 4-235, 4-240, 4-249, 4-258, 4-267, 4-278, 4-279, 4-285, 4-293, 4-294, 4-302, 4-303, 5-13

## Executive orders

2-54, 3-29, 3-68, 3-115, 3-132, 3-145, 4-5, 4-48, 4-69, 4-85, 4-219, 4-264, 5-1, 5-6, 5-12–5-14, 5-18–5-20

## F

### Fast Flux Test Facility

1-1, 1-2, 1-9, 1-10–1-13, 1-18, 1-24, 1-26, 2-1–2-3, 2-5–2-7, 2-9–2-16, 2-21, 2-24, 2-35, 2-37, 2-39, 2-41, 2-42, 2-44, 2-47, 2-48, 2-53–2-59, 2-62–2-64, 2-68, 2-70–2-88, 2-90, 2-94, 2-97, 2-99, 2-103–2-105, 3-1, 3-78, 3-81, 3-88, 3-93, 3-94, 3-106, 3-119, 3-121, 3-154, 3-157, 4-1, 4-3–4-13, 4-19, 4-24, 4-25, 4-30–4-71, 4-73–4-109, 4-111, 4-122–4-127, 4-138, 4-139, 4-142, 4-154, 4-163, 4-173, 4-183, 4-193, 4-203, 4-213, 4-214, 4-216, 4-224, 4-230, 4-241, 4-249, 4-250, 4-252, 4-259, 4-260, 4-262, 4-286, 4-294, 4-295, 4-297, 4-303–4-305, 4-314–4-316, 4-320, 4-321, 5-1, 5-2, 5-6, 5-7

### Fuel Processing Facility

2-68, 3-42, 3-45, 3-72

### Fuels and Materials Examination Facility

2-2, 2-3, 2-35, 2-39, 2-41–2-43, 2-55, 2-57–2-62, 2-64, 2-70–2-85, 2-87, 2-97–2-99, 2-104, 3-1, 3-78, 3-81–3-83, 3-93, 3-115, 4-3, 4-25–4-30, 4-32, 4-73–4-89, 4-103–4-108, 4-110, 4-138–4-153, 4-173–4-183, 4-203–4-213, 4-215, 4-224, 4-230, 4-236, 4-250–4-258, 4-261, 4-280, 4-294–4-303, 4-313–4-316, 4-321, 4-323, 4-326, 5-1, 5-2, 5-8–5-11

## G

### geology and soils

2-70–2-72, 2-74, 2-75, 2-77, 2-79, 2-81–2-86, 2-90, 3-1, 3-2, 3-15, 3-52, 3-96, 3-126, 3-139, 4-1, 4-6, 4-14, 4-20, 4-26, 4-38, 4-59, 4-76, 4-91, 4-97, 4-98, 4-104, 4-113, 4-123, 4-130, 4-141, 4-155, 4-164, 4-174, 4-185, 4-194, 4-204, 4-219, 4-226, 4-238, 4-242, 4-251, 4-264, 4-270, 4-282, 4-287, 4-296

### groundwater

1-6, 1-12, 2-80, 2-81, 2-85, 2-87, 2-90, 3-2, 3-10, 3-13, 3-14, 3-18, 3-20, 3-47, 3-48, 3-50–3-52, 3-56, 3-77, 3-87–3-89, 3-93–3-96, 3-101, 3-126, 3-138, 3-155, 3-158, 4-6, 4-14, 4-20, 4-26, 4-36, 4-37, 4-59, 4-76, 4-113, 4-122, 4-141, 4-174, 4-218, 4-225, 4-227, 4-238, 4-242, 4-251, 4-263, 4-269–4-271, 4-282, 4-287, 4-296

## H

### Hanford Site

1-10–1-13, 1-15, 1-16, 1-18, 1-20, 1-21, 1-24–1-26, 2-1–2-3, 2-7, 2-9, 2-14, 2-15, 2-35, 2-39, 2-41, 2-42, 2-44, 2-55, 2-57–2-64, 2-67–2-69, 2-71, 2-73, 2-74, 2-80, 2-81, 2-87, 2-90, 2-92, 2-103–2-105, 3-1, 3-29, 3-35, 3-37, 3-38, 3-68, 3-75, 3-77–3-90, 3-94–3-116, 3-118–3-121, 3-146, 3-147, 3-149–3-158, 4-3, 4-4, 4-6–4-8, 4-10–4-13, 4-19, 4-25–4-35, 4-37–4-43, 4-48–4-50, 4-52, 4-53, 4-55–4-63, 4-69, 4-70, 4-73–4-80, 4-84–4-92, 4-96–4-98, 4-103–4-105, 4-109–4-111, 4-122–4-127, 4-138–4-145, 4-149–4-154, 4-163, 4-173–4-176, 4-181–4-183, 4-193, 4-203–4-207, 4-211–4-216, 4-235, 4-236, 4-241, 4-250–4-254, 4-258, 4-260–4-262, 4-279, 4-280, 4-286, 4-294–4-299, 4-302–4-307, 4-313–4-317, 4-319–4-321, 4-323–4-328, 5-1, 5-7, 5-16

hazardous waste

1-12, 1-15, 1-25, 2-37, 2-39, 2-41, 2-70, 2-72, 2-75, 2-77, 2-79, 2-82, 2-84, 2-86, 3-2, 3-3, 3-9, 3-14, 3-25, 3-27–3-34, 3-36–3-38, 3-44, 3-45, 3-48, 3-50, 3-64, 3-66–3-70, 3-72, 3-74–3-78, 3-109, 3-112, 3-113, 3-115–3-120, 3-131–3-134, 3-143–3-147, 3-149, 3-150, 3-152, 4-4, 4-9–4-12, 4-17, 4-18, 4-23, 4-24, 4-28, 4-29, 4-36, 4-40, 4-42, 4-43, 4-46–4-52, 4-54, 4-61, 4-63, 4-67–4-71, 4-73, 4-75, 4-83–4-85, 4-87–4-89, 4-115–4-117, 4-119, 4-120, 4-124–4-127, 4-129, 4-131–4-133, 4-135–4-137, 4-140, 4-143–4-146, 4-149–4-153, 4-156, 4-157, 4-161, 4-162, 4-165, 4-166, 4-170, 4-171, 4-175, 4-176, 4-199–4-202, 4-217, 4-228–4-231, 4-235, 4-236, 4-243, 4-245, 4-247, 4-253, 4-254, 4-256, 4-257, 4-263, 4-266, 4-267, 4-269, 4-272, 4-274, 4-277, 4-279, 4-280, 4-283, 4-285, 4-288, 4-290, 4-292, 4-297, 4-299, 4-301, 4-305, 4-310, 4-313, 4-316, 4-318–4-320, 5-3–5-6, 5-16–5-20

high-energy accelerator

2-5, 2-6, 2-27, 2-30, 2-57, 2-61, 2-62, 2-81, 2-90, 2-95, 2-99, 4-214–4-220, 4-224, 4-225, 4-228–4-234, 4-238, 4-244–4-248, 4-254–4-258

High Flux Isotope Reactor

1-20, 2-1, 2-3, 2-5–2-7, 2-9, 2-16, 2-21–2-23, 2-35, 2-57, 2-59–2-61, 2-66, 2-74, 2-79, 2-80, 2-87, 2-98, 2-99, 2-104, 2-105, 3-1, 3-6, 3-9, 3-12–3-15, 3-23, 3-27, 3-29, 3-30, 3-156, 4-109, 4-110, 4-183–4-199, 4-201–4-213, 4-307–4-310, 4-326, 5-1

high-level radioactive waste

1-15, 1-16, 1-25, 3-30, 3-39, 3-69–3-71, 3-75, 3-76, 3-115, 3-116, 3-120, 3-133, 3-145–3-147, 4-12, 4-51, 4-70–4-72, 4-88, 4-151, 4-236, 4-279, 4-285, 5-6, 5-17

historic resources

3-22, 3-58–3-60, 3-104, 3-105, 3-127, 3-128, 3-140, 3-141, 4-221, 4-266, 5-7

human health risk

3-1, 3-2, 3-25, 3-64, 3-109, 3-129, 3-142

## I

Idaho National Engineering and Environmental Laboratory

1-11, 1-15–1-17, 1-19–1-21, 2-1–2-3, 2-7, 2-9, 2-15, 2-16, 2-19, 2-35, 2-37, 2-57–2-65, 2-67, 2-69, 2-71, 2-81, 2-87, 2-104, 3-1, 3-37–3-39, 3-41–3-48, 3-50–3-54, 3-56–3-70, 3-72–3-76, 3-120, 3-146, 3-147, 3-150, 3-152–3-159, 4-3, 4-4, 4-11, 4-19–4-24, 4-31, 4-32, 4-50, 4-56–4-63, 4-68–4-73, 4-88, 4-96–4-98, 4-101, 4-109–4-116, 4-120, 4-121, 4-127–4-133, 4-137–4-144, 4-149–4-151, 4-163–4-166, 4-171, 4-172, 4-183–4-187, 4-191–4-197, 4-201–4-207, 4-211, 4-212, 4-214, 4-215, 4-236, 4-241–4-245, 4-249, 4-260, 4-261, 4-280, 4-286–4-290, 4-293, 4-294, 4-305, 4-307, 4-311–4-313, 4-320, 5-7, 5-17

Idaho Nuclear Technology and Engineering Center

2-37, 2-39, 3-41–3-43, 3-45, 3-46–3-48, 3-50–3-54, 3-56–3-61, 3-66, 3-69–3-74, 4-20–4-22, 4-57–4-60, 4-71–4-73, 4-97, 4-128–4-130, 4-241–4-243, 4-286–4-288, 5-1

incident-free transportation

2-73, 2-90, 4-5, 4-17, 4-18, 4-23, 4-24, 4-29, 4-48, 4-69, 4-85, 4-120, 4-121, 4-137, 4-150, 4-162, 4-172, 4-182, 4-191, 4-192, 4-201, 4-202, 4-211, 4-212, 4-234, 4-248, 4-257

irreversible and irretrievable commitment of resources

4-321

## **L**

land use

1-16, 1-25, 3-1–3-5, 3-7, 3-23, 3-39–3-43, 3-60, 3-79–3-81, 3-83, 3-84, 3-106, 3-122, 3-136, 4-6, 4-14, 4-20, 4-25, 4-33, 4-57, 4-74, 4-90, 4-96, 4-97, 4-103, 4-112, 4-122, 4-128, 4-139, 4-154, 4-163, 4-173, 4-183, 4-193, 4-203, 4-216, 4-223, 4-237, 4-241, 4-250, 4-262, 4-268, 4-281, 4-286, 4-295, 4-307

laws

1-22, 3-2, 3-12, 3-21, 3-31, 3-58, 3-104, 3-126, 3-127, 3-140, 5-1, 5-2, 5-6, 5-13, 5-16, 5-19–5-21

low-energy accelerator

1-10, 2-27, 2-55–2-57, 2-61, 2-62, 2-81, 2-90, 2-95, 2-99, 4-214–4-216, 4-218–4-220, 4-224, 4-225, 4-228–4-234, 4-238, 4-244–4-248, 4-254–4-257

low-level radioactive waste

1-15, 1-18, 1-20, 1-21, 1-26, 2-7, 2-44, 3-30, 3-31, 3-33, 3-35, 3-37–3-39, 3-69, 3-70, 3-73–3-76, 3-90, 3-93, 3-115–3-120, 3-133, 3-134, 3-145–3-147, 4-4, 4-11, 4-12, 4-19, 4-24, 4-30, 4-37, 4-49–4-54, 4-70–4-72, 4-87–4-89, 4-111, 4-121, 4-151–4-153, 4-192, 4-222, 4-235, 4-236, 4-267, 4-279, 4-280, 4-306, 4-307, 4-310, 4-313, 4-316, 4-325, 5-5, 5-6

## **M**

mixed low-level radioactive waste

1-15, 3-31, 3-35, 3-37, 3-38, 3-69, 3-73–3-75, 3-115, 3-118–3-120, 3-133, 3-134, 3-145–3-147, 4-4, 4-11, 4-12, 4-49–4-54, 4-70–4-72, 4-87–4-89, 4-111, 4-151–4-153, 4-222, 4-235, 4-236, 4-267, 4-279, 4-280, 4-306, 4-307, 4-310, 4-313, 4-316, 5-5, 5-6

## **N**

Native American resources

3-23, 3-60, 3-61, 3-106, 3-107, 3-127, 3-128, 3-140, 3-141, 4-7, 4-21, 4-26, 4-39, 4-60, 4-130, 4-142, 4-221, 4-252, 4-266, 4-297, 5-10, 5-11

No Action Alternative

1-11, 1-13, 1-14, 1-17, 1-20, 1-21, 2-1, 2-3, 2-10, 2-15, 2-21, 2-24, 2-35, 2-39, 2-44, 2-51, 2-52, 2-56, 2-57, 2-59, 2-69, 2-71, 2-80, 2-88, 2-90, 2-96, 4-1, 4-3, 4-4, 4-7, 4-13, 4-19, 4-25, 4-50, 4-87, 4-109, 5-1

noise

2-70, 2-72, 2-75, 2-77, 2-79, 2-82, 2-84, 2-86, 2-90, 3-1, 3-2, 3-6, 3-7, 3-43, 3-44, 3-83, 3-84, 3-124, 3-137, 3-148, 3-151, 3-155, 4-1, 4-6, 4-7, 4-14, 4-15, 4-20, 4-21, 4-25, 4-26, 4-34, 4-38, 4-39, 4-56–4-58, 4-60, 4-74, 4-90, 4-97, 4-103, 4-112, 4-122, 4-128, 4-139, 4-154, 4-155, 4-164, 4-173, 4-184, 4-194, 4-204, 4-216, 4-217, 4-220, 4-223, 4-224, 4-226, 4-227, 4-237, 4-238, 4-242, 4-243, 4-250–4-252, 4-262, 4-263, 4-265, 4-268, 4-269, 4-271, 4-272, 4-281, 4-282, 4-287, 4-288, 4-295, 5-12, 5-13

nonhazardous waste

2-70, 2-72, 2-76, 2-78, 2-80, 2-82, 2-84, 2-86, 3-30, 3-31, 3-34, 3-36, 3-37, 3-50, 3-69, 3-70, 3-74, 3-115, 3-116, 3-119, 3-133, 3-134, 3-145, 3-147, 4-4, 4-11–4-13, 4-50–4-54, 4-70, 4-71, 4-73, 4-87–4-89, 4-111, 4-151–4-153, 4-222, 4-235–4-237, 4-267, 4-279, 4-280, 4-310, 4-313, 4-316, 5-5, 5-6

**O**

Oak Ridge National Laboratory

1-1, 1-19, 1-20, 1-26, 2-1–2-3, 2-7, 2-9, 2-21, 2-22, 2-35, 2-55, 2-57–2-63, 2-65–2-68, 2-71, 2-73, 2-81, 2-87, 2-104, 2-105, 3-3, 3-4, 3-6–3-12, 3-14, 3-15, 3-17, 3-18, 3-20–3-23, 3-25, 3-30, 3-31, 3-33, 3-35, 3-36, 3-150, 3-155–3-159, 4-14, 4-15, 4-31, 4-33, 4-34, 4-37, 4-39, 4-51, 4-53, 4-90, 4-91, 4-109, 4-110, 4-112–4-114, 4-183, 4-185, 4-214, 4-215, 4-224–4-228, 4-260, 4-268, 4-270, 4-272, 4-306, 4-322, 4-323, 4-325–4-328, 5-17

Oak Ridge Reservation

1-1, 1-14, 1-15, 1-18–1-21, 1-25, 1-26, 2-21, 2-35, 2-69, 2-87, 3-1, 3-3–3-31, 3-35–3-38, 3-75, 3-120, 3-146, 3-147, 3-152, 3-155, 3-157, 3-158, 4-2–4-4, 4-11, 4-13–4-19, 4-32–4-43, 4-47–4-51, 4-53, 4-54, 4-70, 4-88–4-91, 4-95, 4-96, 4-110–4-117, 4-120, 4-121, 4-151, 4-152, 4-154–4-158, 4-162, 4-163, 4-183–4-187, 4-191–4-197, 4-201–4-207, 4-211, 4-212, 4-215, 4-216, 4-224, 4-226–4-230, 4-233, 4-235–4-237, 4-247, 4-257, 4-261, 4-262, 4-269, 4-270, 4-272–4-274, 4-278, 4-280, 4-281, 4-305, 4-306, 4-307–4-310, 4-320

**P**

packaging

1-14, 1-15, 1-18, 1-19, 2-52, 2-103, 3-34, 3-134, 5-1, 5-15, 5-18

paleontological resources

2-70, 2-71, 2-72, 2-74, 2-75, 2-77, 2-79, 2-81–2-85, 2-86, 2-92, 3-1, 3-2, 3-21, 3-23, 3-58, 3-61, 3-77, 3-81, 3-104, 3-107, 3-108, 3-127, 3-128, 3-140, 3-141, 4-1, 4-7, 4-15, 4-21, 4-26, 4-39, 4-60, 4-77, 4-91, 4-98, 4-104, 4-114, 4-123, 4-130, 4-142, 4-156, 4-165, 4-174, 4-185, 4-186, 4-195, 4-205, 4-220, 4-227, 4-238, 4-243, 4-252, 4-266, 4-272, 4-282, 4-288, 4-297, 5-7, 5-8, 5-10, 5-11

preferred alternative

1-13, 1-14, 1-16, 1-17, 1-20, 1-22, 2-1, 2-102

prehistoric resources

3-22, 3-59, 3-104, 3-127, 3-140, 3-141, 5-8

purpose and need

1-1, 1-21

**R**

Radiochemical Engineering Development Center

2-2, 2-3, 2-21, 2-35, 2-36, 2-42, 2-44, 2-46, 2-48, 2-49, 2-55, 2-57–2-63, 2-70–2-85, 2-87, 2-97–2-99, 3-1, 3-6, 3-9, 3-12–3-14, 3-23, 3-27, 3-29, 3-30, 4-2, 4-3, 4-13–4-19, 4-22, 4-28, 4-31–4-35, 4-37–4-42, 4-44–4-49, 4-51, 4-53, 4-54, 4-89–4-96, 4-109–4-121, 4-152, 4-154–4-163, 4-183–4-192, 4-215, 4-223–4-233, 4-235–4-237, 4-247, 4-248, 4-257, 4-260, 4-262, 4-268–4-280, 4-307–4-310, 5-1, 5-2

Radiochemical Processing Laboratory (Building 325)

2-42–2-48, 3-78, 3-78, 3-81, 3-90, 3-103, 3-106, 4-31–4-34, 4-37–4-42, 4-44–4-53, 4-57–4-66, 4-68–4-70, 4-89–4-102, 4-235, 4-313, 5-1

regulations

1-13, 1-22, 2-52, 2-102, 2-103, 3-2, 3-21, 3-28, 3-36, 3-43, 3-58, 3-67, 3-83, 3-104, 3-112, 3-125–3-127, 3-132, 3-137, 3-140, 3-145, 3-146, 3-148, 4-18, 4-127, 4-240, 4-285, 5-1–5-5, 5-7, 5-11, 5-12, 5-14, 5-16–5-21

research reactor

1-2, 1-6, 1-9, 1-10, 1-13, 1-14, 1-17, 1-24, 2-1–2-3, 2-6, 2-9, 2-15, 2-16, 2-21, 2-24, 2-30, 2-31–2-35, 2-37, 2-39, 2-44, 2-53, 2-55–2-57, 2-63, 2-65, 2-68, 2-83–2-85, 2-87–2-90, 2-95, 2-99, 2-103–2-105, 3-1, 3-136, 3-137, 3-139–3-142, 3-144, 4-1, 4-239, 4-260–4-303, 4-305–4-307, 4-317, 4-319–4-321, 5-2–5-4, 5-7–5-13, 5-16

**S**

scoping process

1-10–1-13, 1-21, 1-23, 1-24, 2-1, 2-28, 2-103

socioeconomics

2-70, 2-72, 2-86, 3-1, 3-2, 3-24, 3-62, 3-108, 3-128, 3-141, 4-1, 4-7, 4-15, 4-21, 4-27, 4-39, 4-56, 4-60, 4-77, 4-92, 4-98, 4-104, 4-115, 4-123, 4-131, 4-142, 4-156, 4-165, 4-175, 4-186, 4-195, 4-205, 4-221, 4-228, 4-238, 4-243, 4-252, 4-266, 4-272, 4-283, 4-288, 4-297

spent nuclear fuel

1-6, 1-14–1-17, 1-19, 1-20, 1-24, 1-25, 2-30, 2-37, 2-39, 2-53–2-55, 2-68, 2-69, 2-71, 2-73, 2-76, 2-78, 2-80, 2-83, 2-85, 2-104, 3-1, 3-39, 3-41, 3-69, 3-77, 3-120, 3-121, 3-133, 3-145–3-147, 3-151, 3-152, 3-154, 4-1, 4-13, 4-54–4-56, 4-73, 4-89, 4-96, 4-103, 4-108, 4-121, 4-127, 4-138, 4-154, 4-163, 4-173, 4-183, 4-193, 4-203, 4-213, 4-281, 4-284, 4-285, 4-294, 4-303, 4-306, 4-307, 4-315–4-317, 5-6, 5-17

support facility

2-27, 2-49, 2-50, 2-55, 2-56, 2-61–2-64, 2-81, 2-83, 2-90, 2-99, 3-136, 3-137, 4-214–4-233, 4-235–4-247, 4-249–4-303, 4-305, 4-317, 4-319, 5-2–5-4, 5-7–5-13



surface water

2-81, 2-85, 3-2, 3-10, 3-11, 3-14, 3-28, 3-47, 3-57, 3-66, 3-67, 3-87–3-89, 3-93, 3-94, 3-112, 3-125, 3-126, 3-138, 4-14, 4-20, 4-26, 4-36, 4-37, 4-59, 4-76, 4-218, 4-225, 4-238, 4-263, 4-264, 4-269, 4-282, 5-16

**T**

terrestrial resources

3-18, 3-54, 3-98, 3-126, 3-127, 3-139, 4-38, 4-114, 4-155, 4-220, 4-226, 4-227, 4-265, 4-266, 4-271, 4-272

Test Reactor Area

2-15, 2-16, 2-105, 3-41, 3-42, 3-44, 3-46–3-48, 3-50–3-54, 3-56–3-61, 3-63, 3-66, 3-68, 3-71, 3-73, 3-153, 4-112–4-114

threatened and endangered species

3-18, 3-21, 3-54, 3-57, 3-98, 3-103, 3-126, 3-127, 3-139, 3-140, 3-158, 4-7, 4-15, 4-21, 4-26, 4-38, 4-39, 4-60, 4-114, 4-123, 4-130, 4-141, 4-155, 4-185, 4-219, 4-220, 4-226, 4-227, 4-243, 4-252, 4-265, 4-266, 4-271, 4-272, 4-288, 4-297, 5-9

transportation

1-11, 1-15, 1-17, 1-19–1-22, 1-26, 2-1, 2-2, 2-49, 2-51–2-56, 2-59–2-63, 2-69–2-74, 2-76, 2-78, 2-80, 2-81, 2-83, 2-85, 2-86, 2-90, 2-91, 2-103, 3-2, 3-24, 3-25, 3-30, 3-43, 3-59, 3-62–3-64, 3-69, 3-70, 3-79, 3-81, 3-87, 3-108, 3-109, 3-115, 3-128, 3-129, 3-132, 3-137, 3-145, 3-148, 3-151, 3-156, 3-159, 4-1–4-5, 4-10, 4-13, 4-14, 4-17–4-20, 4-23–4-25, 4-29, 4-31, 4-33, 4-36, 4-47, 4-48, 4-53, 4-54, 4-57, 4-59, 4-68–4-70, 4-73–4-75, 4-84, 4-85, 4-90, 4-95, 4-96, 4-102, 4-103, 4-107–4-111, 4-113, 4-120, 4-121, 4-126–4-129, 4-137–4-140, 4-150, 4-151, 4-154, 4-155, 4-162–4-164, 4-172–4-174, 4-182–4-184, 4-191–4-194, 4-201–4-204, 4-211, 4-212, 4-215, 4-216, 4-222, 4-227, 4-234, 4-241, 4-242, 4-248–4-251, 4-257, 4-258, 4-260, 4-262, 4-268, 4-269, 4-272, 4-278, 4-286, 4-287, 4-293–4-296, 4-302, 4-305–4-307, 4-317, 4-320, 4-321, 5-1, 5-5, 5-15, 5-16, 5-18

transuranic waste

1-15, 1-17, 1-19–1-21, 1-26, 2-19, 2-20, 2-37, 2-70, 2-72, 2-75, 2-77, 2-79, 2-81, 2-82, 2-84, 2-86, 2-92, 3-4, 3-30, 3-31, 3-34, 3-35, 3-37–3-39, 3-69, 3-70, 3-72, 3-73, 3-75, 3-76, 3-115–3-118, 3-120, 3-133, 3-145, 3-146, 3-149, 4-4, 4-12, 4-49–4-51, 4-53, 4-70–4-73, 4-87, 4-88, 4-111, 4-151, 4-152, 4-222, 4-235, 4-236, 4-267, 4-279, 4-306, 4-307, 4-310, 4-313, 4-316, 4-322, 5-6, 5-17

**U**

unavoidable adverse environmental impacts

4-319

Unirradiated Fuel Storage Facility

2-37

## V

### visual resources

2-70–2-72, 2-74, 2-75, 2-77, 2-79, 2-81–2-86, 2-90, 3-1–3-3, 3-6, 3-39, 3-42, 3-79, 3-82, 3-122, 3-124, 3-136, 3-137, 4-6, 4-14, 4-20, 4-25, 4-33, 4-34, 4-57, 4-74, 4-90, 4-97, 4-103, 4-112, 4-122, 4-128, 4-139, 4-154, 4-163, 4-164, 4-173, 4-183, 4-184, 4-193, 4-203, 4-204, 4-216, 4-223, 4-237, 4-241, 4-242, 4-250, 4-262, 4-268, 4-281, 4-286, 4-295, 5-10

## W

### waste management

1-15–1-17, 1-24, 1-25, 2-54, 2-74, 2-81, 2-92, 3-1–3-4, 3-30–3-33, 3-35, 3-37–3-39, 3-41, 3-61, 3-69–3-78, 3-84, 3-88, 3-115, 3-117, 3-120, 3-132, 3-133, 3-135, 3-138, 3-145, 3-149–3-153, 3-157, 3-159, 4-1, 4-4, 4-11, 4-12, 4-19, 4-24, 4-30, 4-37, 4-49–4-52, 4-54, 4-59, 4-70–4-73, 4-76, 4-86–4-89, 4-96, 4-102, 4-103, 4-108, 4-121, 4-123, 4-127, 4-138, 4-141, 4-151–4-153, 4-163, 4-172, 4-182, 4-183, 4-192, 4-202, 4-203, 4-213, 4-222, 4-225, 4-235–4-238, 4-240, 4-249, 4-251, 4-258, 4-267, 4-268, 4-270, 4-279–4-282, 4-285, 4-294, 4-296, 4-303, 4-305–4-307, 4-310, 4-313, 4-315, 4-316, 5-2, 5-5, 5-6, 5-15–5-18

### waste minimization

2-74, 2-104, 3-37, 3-75, 3-119, 3-134, 3-135, 3-147, 3-154, 4-49, 4-86, 4-315, 4-325

### water resources

2-71, 3-1, 3-2, 3-10, 3-47, 3-87, 3-125, 3-138, 4-1, 4-6, 4-14, 4-20, 4-26, 4-36, 4-37, 4-59, 4-76, 4-91, 4-97, 4-104, 4-113, 4-122, 4-129, 4-140, 4-155, 4-164, 4-174, 4-184, 4-194, 4-204, 4-218, 4-219, 4-225, 4-226, 4-238, 4-242, 4-251, 4-263, 4-264, 4-269, 4-270, 4-282, 4-287, 4-296, 5-5, 5-13, 5-17

### wetlands

2-90, 2-92, 3-18, 3-20, 3-54, 3-56, 3-57, 3-88, 3-98, 3-101, 3-102, 3-126, 3-127, 3-139, 3-140, 4-7, 4-15, 4-26, 4-38, 4-39, 4-141, 4-155, 4-185, 4-219, 4-220, 4-226, 4-227, 4-252, 4-265, 4-266, 4-271, 4-272, 4-297, 5-12–5-14, 5-18

## Y

### Y-12 Plant

1-20, 1-21, 3-3, 3-4, 3-8, 3-10–3-12, 3-14, 3-15, 3-18, 3-21, 3-22, 3-25, 3-29, 3-32, 3-33, 3-35–3-37, 3-150, 3-157, 3-158, 4-51